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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. |
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08/980,885      12/01/97      ROWLAND

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MM42/1228

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EXAMINER

PHAN, J

ART UNIT

PAPER NUMBER

2872

DATE MAILED:

12/28/99

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.  
**08/980,885**

Applicant(s)  
**Rowland et al**

Examiner  
**James Phan**

Group Art Unit  
**2872**



☒ Responsive to communication(s) filed on Oct 18, 1999

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire three month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 1-8 and 15-18 is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 1-8 and 15-18 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been  
☐ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_.

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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## DETAILED ACTION

### *Continued Prosecution Application*

1. The request filed on 10/18/99 for a Continued Prosecution Application (CPA) under 37 CFR 1.53(d) based on parent Application No. 08/980,885 is acceptable and a CPA has been established. An action on the CPA follows:

### *Claim Rejections - 35 USC § 112*

2. Claims 1, 3-8 and 15-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The phrase "between about 0.0005 and 0.003 inches" recited in claims 1 and 15 (line 4) is indefinite since it is not clear whether 0.0005 and 0.003 inches are included in the range.

Claim 17 recites "A retroreflective structure comprising an array of cube corner prisms which diffract essentially all retroreflect light". Claim 17 is indefinite since it is not clear how cube corner prisms diffract essentially all retroreflect light. Sufficient structure should be provided in claim 17 for the claimed functional language.

Claims 3-8 and 18 are also rejected in that they are dependent on the indefinite claims and thus inherit the deficiency above.

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*Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

4. Claims 1, 3, 5 and 7-8 ( the examiner assumes that 0.0005 and 0.003 are included in the range of "between about 0.0005 and 0.003 inches" since about 0.0005 can be smaller or greater than 0.0005 and about 0.003 can be smaller or greater than 003), and 15-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Van Arnam.

Van Arnam, column 7, lines 1-4, discloses cube corner trigonal pyramids having size of about 0.003 to about 0.015 inch along the side of the base of the pyramids. Thus, the disclosed length of "about 0.003", i.e. smaller or equal to 0.003, is within the claimed range.

In re claim 16 see column 1, lines 56-59, and U.S. Pat. 3,712,706 to Stamm, column 3, lines 47-48.

5. Claims 17-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Stamm.

Figs. 3 and 8 and the accompanying text appear to meet broad claims 17-18.

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6. Claims 1-3, 5-8 and 15-18 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Pat. No. 5,780,140 to Nilsen. See column 7, lines 26-38.

In re claims 17-18 see column 1, line 65 through column 2, line 3.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Van Arnam or Nilsen in view of admitted prior art, U.S. 5,558,740, disclosed on page 12, first paragraph, of the present application.

Each of Van Arnam and Nilsen discloses all claimed features except for arrays of prisms seamed together. The admitted prior art, U.S. 5,558,740, disclosed on page 12, first paragraph, discloses the claimed feature. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the teaching of the admitted prior art in Van Arnam or Nilsen for increasing the size of the retroreflective sheeting.

9. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Van Arnam in view of Walter.

Van Arnam discloses all claimed features except for tips of the apices of adjacent cube corner prisms tilted with respect to one another. However, this feature is known in the art for

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producing a wide retroreflective angularity. For an instant, Walter discloses a retroreflective structure having cube corner elements tilted at an angle of between about three and ten degrees for producing a wide retroreflective angularity. Thus, it would have been obvious to one skilled in the art at the time the invention was made to apply the teaching of Walter in Van Arnam so as to include cube corner prisms tilted at an angle for improving the retroreflective angularity of the retroreflective structure.

*Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Phan whose telephone number is (703) 308-4810. The examiner can normally be reached on M-F from 9:30 to 6:00. The fax phone number for this Group is (703) 308-7722.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.

Phan, J.

Dec. 13, 1999

  
James Phan  
Primary Examiner